

ASSEMBLING SUB-STACKS OF ELECTROCHEMICAL CELLS

ABSTRACT OF THE DISCLOSURE

A method for assembling fully functional sub-stacks of electrochemical cells, that
5 includes securing a plurality of electrochemical cell components into a functioning sub-stack.
The cell components may include, without limitation, bipolar plates, bipolar grids, monopolar
plates, monopolar grids, membrane and electrode assemblies (MEA), gas diffusion elements,
flow fields, cooling plates, heating plates and combinations thereof. Each of these
components are assembled in a generally planar assembly, or a stack. The method further
10 includes banding perimeter tabs of one component in the sub-stack to perimeter tabs of
another component in the sub-stack. Banding the perimeter tabs does not compress the
components together with such a force as to form fluid tight seals, but rather provides
compression to hold each component in place and aligned during storage and normal handling
of the sub-stack. The perimeter tabs extend from the perimeter of the component and in the
15 same plane as the component.